survival was 18 months (95% CI 12−30). 46 patients were assessable for safety. The incidence of grade 3/4 leucopenia and neutropenia was 20%, respectively 8%. Other observed grade 3/4 toxicities were onycholysis and skin toxicity in 13%, respectively 4% of patients. We observed 2 episodes of grade 3 diarrhea, and 8 infections.

Conclusions: Weekly D and T is an active regimen with a favourable toxicity profile and considerable activity even in heavily pre-treated patients. Several reasons for the inferiority to the q. 3 week schedule can be discussed: 4 patients have failed to be evaluated for response after 10 weeks; a relevant number of heavily pre-treated patients (15%) have been enrolled. Further updates will be presented.

435 Poster

Fulvestrant in metastatic breast cancer previously treated with aromatase inhibitors

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Background: Breast Cancer patients with hormone-dependent disease are frequently treated with Aromatase Inhibitors (AI) in the adjuvant as well as in the palliative setting. In some of these patients Metastatic Breast Cancer (MBC) progression is still responsive to endocrine therapy (ET). Fulvestrant is effective in MBC after AI treatment. Some pre-clinical studies suggest that MBC progression under AI treatment is reversible by adding Fulvestrant (Jelovac et al. Cancer Res 2005; 65: 5439–5444).

In this retrospective study we examined the efficacy of Fulvestrant as single ET agent or combined with an AI in progressive MBC disease after AI treatment.

Material and Methods: This retrospective study included 39 MBC patients with the following characteristics: median age: 65 years (37−89). Previous ET: 3 (1−4); Sites of metastases: bone 69%; skin 23%; Liver 26%; Lung 13%; other 23%. Twenty-two (56%) patients had one site of metastases only (12 had bone metastases) and 17 patients (44%) had >1 site of metastases.

ER, PR and Her-2neu co-expression were analyzed. All patients were ER and or PR positive at the primary tumor.

Efficacy was assessed by Clinical Benefit (CB): stable disease >6 month plus objective remission.

Eight patients (20.5%) received Fulvestrant and continued on the AI previously prescribed for MBC whereas 32 patients got Fulvestran as a single ET agent after AI treatment.

Results: The median time to progression (TTP) was 5.7 months (1−23). CB was observed in 14 patients (35%) – 12 had stable disease >6 months and one had partial remission of skin metastases. In patients with CB the median TTP was 12 months (7−23).

In patients treated with Fulvestrant plus AI the median TTP was 5.4 months compared with a median TTP of 5.7 months in patients with Fulvestrant ET alone.

In 12 patients, metastatic tissue was available for ER and PR expression. The median TTP in 11 patients with ER and/or PR ve+ at metastatic tissue was 4.5 months.

Patients with 2 prior ET had a median TTP of 8 months compared with 5.3 months (3 prior ET) and 4.8 months (4 prior ET).

Conclusions: Fulvestrant may be an effective ET option in MBC after AI treatment possibly providing long-term CB. Our results do not suggest that AI should be maintained in patients eligible for Fulvestran. In a subgroup of patients with metastatic tissue analyzed there was no correlation between ER and/or PR expression at metastatic level and Fulvestrant effectiveness. In our study prior number of ET was negatively correlated with TTP.

436 Poster

New therapeutic options significantly improved overall survival in HER-2-positive metastatic breast cancer patients

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Background: In metastatic breast cancer (MBC), positive HR constitute a favorable prognostic factor and predict response to the hormonal therapy. On the contrary HER-2 overexpression is an adverse prognostic factor associated with a more aggressive tumor. In this retrospective study we analyzed overall survival (OS) of four phenotypes: HR−/HER-2− (triple negative); HR+/HER-2−; HR+/HER-2+ and HR−/HER-2+.

Methods: We evaluated 75 patients with a MBC treated at our Center during 2005. A comparative lecture of estrogenic, progestative and HER-2 receptors was performed by IHC. The 44% of patients had a luminal phenotype, 40.3% patients were HER-2+ and 15.7% patients were triple negative. The median age of patients was 54.8 years (range: 29−70). Localizations of metastatic lesions, Karnofsky Performance Status and the mean of age were similarly in each group. All pts HR+ received at least 2 line of hormonal treatment, all pts HER-2+ received trastuzumab or trastuzumab and lapatinib.

Results: Patients HR+ received on average 3.13 lines of therapy (range, 1−7). Patients HER-2+ on average received 4.09 lines of therapy (range 1−7). Patients triple negative received only 3 lines of therapy (range: 1−4).

At the medium term of follow-up 34 months, no difference in proportion of CNS involvement in both group: HER-2+ and HER-2− (26% vs 27%) were found.

The median of OS for the whole group was 32 months. Any statistical significantly differences in OS was noted in pts with luminal phenotype, HER-2+ or triple negative pts, but a strong trend to decreased a overall survival in triple negative group was noted (24 vs 36 months).

Conclusions: These results suggest that HER-2+ (treated with trastuzumab) and, HR+ metastatic breast cancer pts, have a distinct and favorable biological nature than pts with triple negative. The new option of treatment is definitely needed for this pts group.

437 Poster

Retrospective analysis of patients with poor prognostic factors and metastatic breast cancer in a phase III study comparing nab-paclitaxel to solvent-based paclitaxel

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Background: Overall, nanoparticle albumin-bound (nab)-paclitaxel demonstrated superior antitumor activity compared with solvent-based paclitaxel in a phase III trial of patients with metastatic breast cancer (MBC). The efficacy of nab-paclitaxel in patients with poor prognostic factors was examined in the current analysis.

Material and Methods: This was a retrospective analysis of a multicenter, randomized, phase III efficacy trial of nab-paclitaxel (CA-012). Patients (⩾18 years of age) received either nab paclitaxel 260 mg/m^2 or 175 mg/m^2 solvent-based paclitaxel intravenously every 3 weeks for treatment of MBC. Subgroups included patients with or without visceral dominant lesion sites and with ⩾3 or <3 sites of metastases.

	Visceral disease		Nonvisceral disease		⩾3 metastases		<3 metastases	
	Nab-pac (n = 177)	SB-pac (n = 182)	Nab-pac (n = 51)	SB-pac (n = 43)	Nab-pac (n = 141)	SB-pac (n = 117)	Nab-pac (n = 85)	SB-pac (n = 107)
ORR, %*	34	19	34	19	26	17	46	20
P-value	0.002		0.074		0.092		<0.001	
TTP, wks	21.9	16.4	24.4	19.3	19.4	16.3	28.4	16.9
P-value	0.036		0.026		0.053		0.014	

Nab-pac = Nab-paclitaxel; SB-pac = Solvent-based paclitaxel; ORR = Overall response rate; TTP = Time to disease progression.

*Overall response rates for visceral vs nonvisceral disease were reported previously (Gradishar et al. J Clin Oncol. 2005;23:7794–7803).

Conclusions: Patients treated with nab-paclitaxel had superior overall response rates and significantly longer time to disease progression regardless of baseline prognostic factors. Patients with extensive disease had a >20% reduction in the risk of disease progression compared with solvent-based paclitaxel.

Friday, 18 April 2008 12:30–14:30

POSTER SESSION

Predictive and prognostic factors

438 Poster

The cancer of the male mammary gland in men in Armenia

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Goal: To study the relevance of certain clinical-morphological indicators for the prognosis of the disease.

Introduction: The cancer of the mammary gland in men is a relatively rare disease in. Its rate is smaller by a factor of 100 compared to the rate among women, and it constitutes only 0.5% of all types of cancers among men in the country. As a result, not only the population at large, but the physicians as well are poorly informed about this disease.

Materials and Methods: Data to be presented in the study relies on observation of 88 men, who have undergone surgeries in the National Oncological Center of the Republic of Armenia in the period between 1985 and 2001. The average age of the subjects was 61.3.

Results and Discussion: The data demonstrate that the survival rate over 5 years is lower among patients with regional lymph node metastases (27.7% and 65.9% respectively, $P < 0.002$). This information allows us to identify the damage of regional lymph nodes as an extremely important prognostic indicator of the progression of the disease. The 5-year survival rate is also strongly correlated with the size of the tumor. Tumors smaller than 1 cm were correlated with higher survival rates than tumors that ranges between 1 and 3 cm (80%, 57.1%, and 33.3% respectively, $P < 0.05$). The study also focused on the grade of histological malignance for the prognosis of the disease. Its increase significantly shortened the 5-year survival rate of the patients (88.2%, 59.1%, 24.5% respectively, $P < 0.05$).

Conclusion: To summarize, metastatic damage of the regional lymph nodes, the size of the tumor exceeding 1 cm, and the high grade of histological malignance are very important prognostic indicator of the 5-year survival rate for men with cancer of the mammary gland. More than half of the patients in the study had metastatic damage of the regional lymph nodes, 54.4% of the men began the course of treatment with tumors larger than 3 cm. These numbers indicate also the low probability that patients will seek medical attention at the early stages of the disease, which is something characteristic of Armenia.

439 Poster

Distant metastasis after radical treatment of breast cancer: risk factors and their prognostic relevance in 378 consecutive patients

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Background: The aim of present study was to evaluate the prognostic significance of 16 clinical, pathomorphological and immunohistochemical features for predicting distant metastasis (DM) in breast cancer (BC) patients.

Material and Methods: A retrospective study of 378 patients with invasive BC (T1–3N0–3M0), who were operated between 2000 and 2003 in our institution, was made. Out of them almost 80% underwent modified radical mastectomy (MRM). Tumor size (T), axillary lymph nodes (N status), age, menstrual status, histological type, grade, LVI, in situ component, ER, PR, HER-2, Ki-67, p53, bcl-2, cathepsin D and E-cadherin were evaluated. Mean time for follow-up was 56 (1−88) months. Survival curves were estimated by Kaplan–Meier methods and compared with the Log-rank test. Multivariate analysis of clinical variables by Cox regression analysis also was performed.

Results: During the follow-up period 66 (17.4%) patients developed DM and 76 (20.1%) patients died. Univariate analysis of data showed that T ($p = 0.0001$), N status ($p = 0.0001$), presence of comedo type in situ component ($p = 0.0001$), LVI ($p = 0.16$), Ki-67(+) ($p = 0.007$) and Cathepsin D(+) ($p = 0.013$) are independent prognostic indicators for elevated risk for DM. After multivariate analysis only number of involved lymph nodes (OR 8.8; 95% CI 3.5−21.77; $p = 0.0001$) and presence of comedo type in situ component (OR 2.4; 1.19−4.74; $p = 0.015$) retain their significant association with DM development.

T ($p = 0.001$), N status ($p = 0.0001$), ER ($p = 0.031$), LVI ($p = 0.012$) and comedo type in situ component ($p = 0.0001$) are factors associated with 5-year overall survival by univariate analysis. After multivariate analysis again N status (OR 3.8; 95% CI 1.36−10.56; $p = 0.011$) and in situ component of comedo type (OR 3.3; 1.61−6.56; $p = 0.001$) were the only factors that retain their relevance with disease survival.

Conclusion: The study found that N status and presence of comedo type in situ component are the most reliable predictors of unfavorable events in BC patients. Relation between presence of in situ component and risk for LR after breast-conserving surgery is well established, but our result is one of the first in the literature who found such relation with the risk for DM in patients after MRM. Histological type of in situ component is more important than its extention, i.e no matter now extensive is comedo type intraductal component, it is always associated with risk for DM. The evaluation of optimal number of risk markers is substantial for making an individualized decision regarding adjuvant therapy and follow-up, especially in N0 group.

440 Poster

Clinical and biological breast cancer feature according to age in a single institution

D. Budjevac[1], A. Karanikolic[1], L. Djordjevic[1], N. Djordjevic[1], L.J. Paunkovic[1]. *[1]General surgery, Breast surgery, Nis, Serbia*

Background: Breast cancer in older women is generally considered a less aggressive disease. The objective of this study was to determine the differences in presentation and treatment of older women (>60) with breast cancer.

Material and Methods: Data of 1045 patients were collected from breast cancer registers from Clinic for Oncology Nis between 1998–2002. We analyzed differences in presentation and care in women <60 and women >60 years of age. Variables analyzed included mode of presentation, stage at diagnosis (tumour size and nodal status), ER/PR status, initial surgery, and chemotherapy. Data relative to recurrence was also analyzed.

Results: Four hundred twenty-three women were $\leqslant$60 and 622 were >60 years of age. Younger women were significantly with a palpable mass (70% vs. 42%, $p < 0.0001$), and with advanced stage ($p < 0.0001$). Positive ER/PR tumours had 43% younger vs. 66% older patients. Younger women were significantly with a radical surgical procedure and were 2.6 times more likely to have reconstruction after mastectomy than older women. Younger women were more likely to receive chemotherapy (78.2% vs. 55.3%, $p < 0.0001$). In women with T1 tumours, 25% of the old women received chemotherapy vs. 40% of younger women ($p = 0.01$). There was no difference in the duration of chemotherapy between age groups, although duration of chemotherapy increased with increasing stage. More women >60 were treated with hormonal therapy ($p = 0.0002$). The overall recurrence rate in younger women was statistically higher than in older women ($p = 0.0005$).

Conclusions: Older women are more likely to present with non-palpable masses and have lower stage disease at presentation and less likely to have ER/PR negative tumours. Younger women choosing mastectomy and more likely have reconstruction. Younger women being more likely to be treated with chemotherapy, but older women were more treated with hormonal therapy.

441 Poster

Breast cancer specific survival by node status and lymphovascular invasion

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Background: Lymph node status is single most important and reliable predictive factor for patients with invasive breast cancer. The utility of lymphovascular invasion (LVI) as an additional useful prognostic indicator has been heretofore ill defined.

Material and Methods: Data of 995 patients were collected from breast cancer registers from Clinic for Oncology Nis between 1996–2001. Age at diagnosis, tumour size, tumour palpability, estrogen receptor (ER) and progesterone receptor (PR) hormonal receptor status, nuclear grade, lymph node status, and presence or absence of LVI were analyzed.

Results: LVI was present in 357 (35.88%) patients. Lymph node positive tumours had 501 (50.35%) patients. These patients were then divided for further analysis into four subsets based on nodal status and presence or absence of LVI.

LVI	Nodes (−)	Nodes (+)
present	103	254
absent	391	247

Multivariate analysis revealed that both lymph node status and the presence or absence of LVI were highly significant independent predictors of outcome. Kaplan–Meier survival curves showed that LVI was associated with a significant fall in survival at 5 years despite absence of nodal metastases (84% versus 78%, $P < 0.0001$), and LVI portended an even worse outcome in patients with nodal disease (67% versus 49%, $P < 0.001$).

Conclusions: Lymph node status and the presence or absence of LVI can be used to predict which subset of patients will have better prognosis (node negative + LVI absent) or bad prognosis (node positive + LVI present).